

Universal Cable UC2000 .. Fibre Specification Graded Index Fibre 9/125 acc. to DIN EN 188 101

Material

Fibre material	germanium doped silica
Primary coating	double layer UV hardened acrylate

Dimensions

Mode field diameter at 1310 nm	µm	9.1 – 9.2
Tolerance	µm	± 0,4
Core/cladding concentricity error	µm	≤ 0.6
Cladding diameter	µm	125
Tolerance	µm	± 1.0
Cladding non-circularity	%	≤ 1,0
Diameter over coating	µm	245
Tolerance	µm	± 10

Transmission Properties and optical characteristics

Fibre type	Attenuation dB/km	Dispersion ps/nm*km	Cut-off wavelength	Wavelength nm	Standard
9/125	≤ 0.39 ≤ 0.25	≤ 3.0 ≤ 18	$\lambda_c < 1260\text{nm}$	1310 - 1625 1550	ITU-T Rec.G 652.D

Index of refraction (IOR)	@1310 nm @1550 nm	1.4677 1.4682
Zero-dispersion wavelength	nm	1302 - 1322
Zero-dispersion slope	ps/(nm*km)	≤ 0.091
Cut-off wavelength (fibre) λ_c	nm	1150 - 1330

Mechanical properties

Proofstress level	GN/m ²	0.7
Proofstrain for 1 second (equivalent)	%	1.0
minimum bending radius	mm	30
Loss increase of 100 turns of fibre loosely-wound with 30 mm radius, measured at 850 nm and 1310 nm	dB	< 0.05

Standard

The fibres are acc. to DIN EN 188 100, DIN EN 188 101 ITU-T G. 652.D, ISO/IEC 11801 class OS1 and EN 50173 Class OS1.